



# LYNX

For a city of tomorrow.





## INTRODUCING LYNX

# Tackling the challenges of a 21<sup>st</sup> century city

### **As cities grow, citizens desire a cleaner environment**

More than 4 billion people live in cities today. And estimates put this figure at 7 billion by 2050. As focal points of intense social and economic development, cities face an ever-increasing complexity of infrastructure systems. The growth of public awareness about sustainable development, combined with an understandable desire to live in a healthy, clean environment present a growing set of challenges for caretakers in charge of urban infrastructure maintenance.

### **RASCO has the answers**

To tackle these challenges, the cities of tomorrow turn to technology. But technology is useless unless designed around those that should benefit from it. For almost 30 years, RASCO has been designing technology for urban infrastructure maintenance with one sole focus – build great technology for safer transport and a cleaner environment. With presence in close to 40 countries worldwide and products spanning snow clearing and de-icing, sweeping and washing, RASCO holds a unique position to help city caretakers adopt technology to tackle the challenges of a city of tomorrow.

### **LYNX, the sweeper that goes beyond expectations**

And now, we are proud to present a novelty in our portfolio: a product that goes beyond the current state of the art and brings the technology needed to tackle the 21<sup>st</sup> century problems of urban areas. Meet LYNX, a compact vacuum sweeper. A new warrior in a battle for sustainability of future societies' infrastructure.

We challenged the norm. We questioned what a sweeper really is. We examined how it interacts with its surroundings and its users. We found there are many things to improve. And we have turned our knowledge, experience and design thinking approach into a product that challenges the status quo.

The result is a sweeper that goes beyond expectations. Its aggressive and modern design balances advanced aesthetics with functionality. Its power is unparalleled. It takes care of its users and works in total sync with them. What we built tames massive cleaning power and puts it in user's hands. What we built tackles the challenges of 21<sup>st</sup> century cities.

# Design thinking of a sweeper

### Everything in the right place

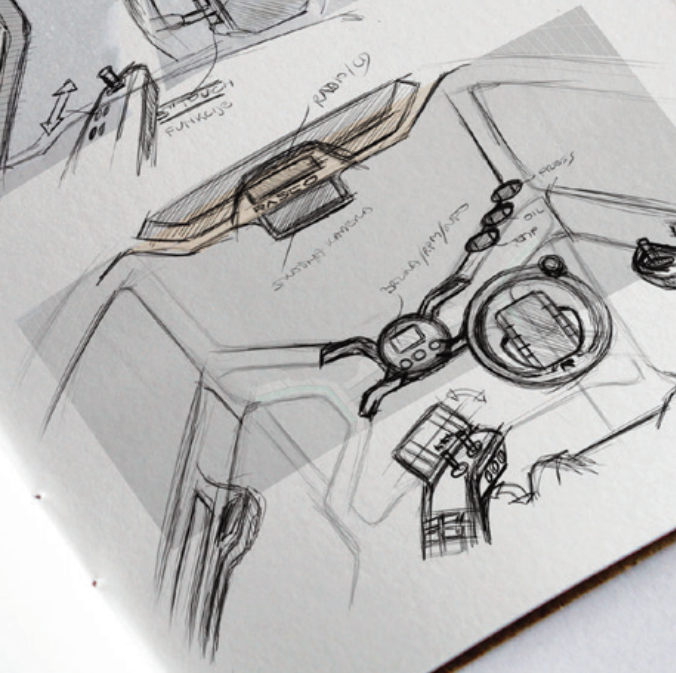
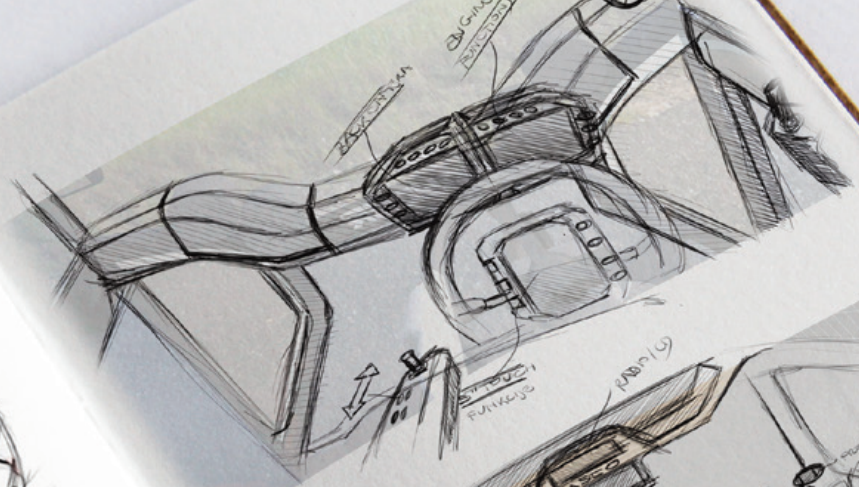
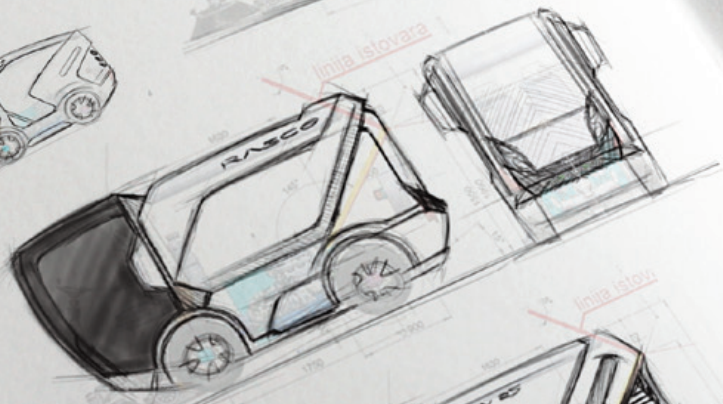
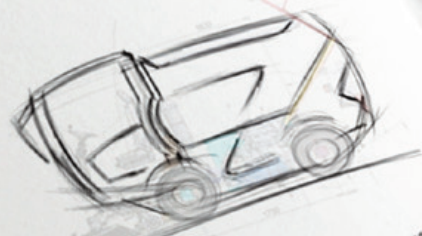
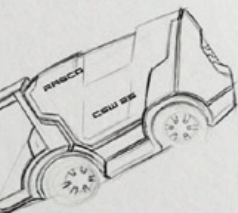
The creation of LYNX is based on a design thinking approach. LYNX is more than a perfect sum of its parts. It embodies what we at RASCO believe in – great technology for efficient, comfortable and safe work build on a durable platform.

From a field-proven diesel engine, carefully designed suction turbine, powerful and smooth drive system, adaptable power delivery, high capacity hopper and water storage to the most comfortable and highest visibility cabin in modern sweepers, LYNX is designed for continuous high-performance sweeping. Coupled with an unparalleled human machine interface based on years of operators' experience, our sweeper offers a working environment without reproach.

### A new perspective on what a sweeper should be

We took great care to focus on solving the problems of today's state of the art when designing LYNX. We diverged in our thinking to advance both form and function. We focused on solutions and went through numerous iterations to find a perfect combination of power, agility and ease of use. What resulted is a cutting-edge design coupled with high performance harnessed in an easy to use form for the operator. No compromises were made. What resulted is beyond the norm.

What resulted is a machine for the city of tomorrow.





THE POWER OF LYNX

# Performance beyond the norm



62 kW



50 km/h



2 m<sup>3</sup>

## An efficient powertrain...

At the heart of LYNX sits the cleanest diesel engine available today, an advanced EURO 6C engine delivering 62 kW of power. This power is then distributed optimally, consuming minimal fuel and reducing emissions.

The powertrain system features an automotive electronically-controlled hydrostatic drive ensuring a minimum of power is used to achieve the desired speed and suction. Distinct self-adjusting ECO mode reduces fuel consumption to a minimum while ensuring enough power is delivered during driving.

## ...delivering all the performance you need

Even with its light aluminium 2 m<sup>3</sup> hopper loaded to 4.500 kg total weight, climbing steep hills is no problem for LYNX – it can manage a 30% climb. Moving from one location to another is done in a breeze with 50 km/h top speed in transport mode.

Sweeping is fast at 12 km/h top sweeping speed. Steering on both axles is supported by a SIL2-certified safety electronic controller, with the front axle turning up to 48 degrees.



### **Compact design, serious suction power**

Cleaning width of 2.800 mm (3.200 mm for a three-brush system) combined with a custom-designed, quiet suction fan with more than 9.000 m<sup>3</sup>/h capacity powered by a load sensing hydraulic system provides the highest possible sweeping performance in a compact package. Water recirculation ensures smooth flow of collected material and additional dust suppression.

When the hopper is full, it's easy to unload with 1.55 m minimum tipping height and hydraulically controlled hopper door.



### **Practicality and extended autonomy**

For maximum efficiency, both the wander hose and the manual pressure washer are immediately available, without any need to assemble hoses prior to work.

With a total of 230 L fresh water capacity stored in dual tanks, 170 L recirculation tank and 65 L fuel tank, LYNX has excellent autonomy for extended working periods without interruptions for refilling.





INSIDE LYNX

# Comfort at reach



## Made with the user in mind

When designing LYNX, one of the sweeper users we consulted had 16 years of sweeping behind him. His back hurt because he spent years leaning forward and to the right to see the sweeping brushes. He had headaches after working for 8 hours because he was in direct sunlight. In-cabin vibrations and noise made him tired. The seat was too stiff. Air conditioning had to be constantly adjusted.

We promised him we will change this. With LYNX, we delivered on our promise.



## Unmatched visibility

LYNX has a unique cabin design built around the operator. We combined comfort with visibility, providing a leaned back seating for the user, while at the same time enabling both brushes to remain in sight. A forward slanted two-piece windshield with different angles, complemented by full glass doors provide unparalleled visibility. And additional rear-view windows, with elaborate rear-view mirrors, ensure that safe and efficient movements can be made with ease.



### The not-so-little things that count

Both the user and passenger full size seats feature air suspension. The cabin is mounted on vibration absorbing elements for an overall smoother ride. But operator comfort does not stop there.

An automatic air conditioning system with dual filtration provides a comfortable working environment no matter the outside conditions.



A long roof protects the user from direct sunlight regardless of the large window areas. User comfort is further boosted by bottle storage with cooling and heating, in-cabin smartphone charging and plenty of storage space for documents and tools.



# Complex operations performed with ease

### Smart control layout

The job of a sweeper operator requires high situational awareness and multi-tasking. The last thing anyone in such a position needs is constantly taking eyes off the work to look for knobs and switches. LYNX's user interface has been designed with special care taken to control layout and grouping, giving the user maximum flexibility and minimising complexity at the same time.

LYNX controls are grouped to be easily accessible and intuitive to use. Controls for all the functions related to steering and driving are placed on the steering column that minimally obstructs the front cab view. The most used controls related to sweeping are embedded into the hand rest on the driver's side door. Secondary sweeping controls are placed on the driver side cab pillar. Other vehicle controls, typically used less often, are placed on the overhead console accompanied by the 7" color touchscreen.

### Beginner friendly but deeply customizable

The learning curve and simplicity of use were two main factors we took into consideration when designing the control system.

LYNX comes with a set of pre-defined working modes that allow the user to start working almost immediately.

For more demanding and advanced users LYNX implements simple and intuitive tweaking, customization and storing of all working parameters.

## LYNX SAFETY FEATURES

# A new standard of safety

### Guaranteed stability

Compact machines can be a handful even for the most experienced users. But with LYNX, the user is safe. With engine, fuel and water tanks placed at the lowest possible position, the centre of gravity remains low even when under load.

Hydro-pneumatic suspension ensures the vehicle remains stable regardless of the weight distribution. In combination with the largest tyres compact sweepers offer today, hydro-pneumatic suspension makes it easy to tackle high road side curbs, as well as to enter low height spaces such as underground parking garages. LYNX can really be used in any situation cities of tomorrow might require.

### Stops where you want, goes when you want

Even with the fully loaded hopper LYNX is easy and safe to steer and will stop when required. Rear axle steering is fully electronically controlled and automatically disengaged when sweeper is in the transport mode. Limited slip differential takes care of the safety on the slippery terrain, while hydrostatic drive combined with the disc brakes on all wheels are a guarantee that LYNX will stop when the brake pedal is pressed.

Dependable parking brake system even takes care and automatically compensates for the wear of brake pads. Once in the parking position, you will find LYNX at the exact same place you left it.

We made sure LYNX is safe to use and operate. Designed to tackle high curbs and creep into the confined spaces, driving fully loaded at 50 km/h or sweeping the most demanding surfaces, intelligent and reliable systems built into the machine will make sure LYNX never lets you down.







## A FLEXIBLE PLATFORM

# Future-proof concept

### For beyond tomorrow

LYNX is more than a sweeper, it is a future-proof platform capable of more than just sweeping. When LYNX concept was thought through, when design plans, features and capabilities were carved out we made sure the LYNX platform is ready for the challenges future might bring.

Independently of a powertrain LYNX might use tomorrow, it will be as user friendly, safe and comfortable as it is today. Because you do not change a winning concept.

### When you need more than just sweeping

LYNX, primarily a compact sweeper, can do more than just sweeping. Equipped with high pressure front washer LYNX can also wash the dirt of the streets, pedestrian zones and public squares. Hopper and water tanks connected into one large water tank provide enough liquid for thorough washing of a large area. If in need, you can also use LYNX as a winter maintenance vehicle. Equipped with a small snow plough in the front and a drop spreader in the back, LYNX can be used as a handy tool to fight the light snowfall.

However, if you need a dedicated winter maintenance vehicle for the harsh winter conditions contact us, we can provide professional winter maintenance solutions.

## Engine

Model	VM R754 Euro6 C turbodiesel engine with common rail direct injection and intercooler
Exhaust treatment	DOC & DPF+SCR
Cubic capacity	2970 ccm
No. of cylinders	4
Gross rated power	62 kW @ 2300 rpm
Maximum torque	270 Nm @ 1350 rpm
Fuel tank volume	65 L

## Sweeping unit

Disc brush diameter / speed approx.	850 mm
Disc brush speed	0-125 rpm
Sweeping width (2 brush system)	2800 mm
Sweeping width (3 brush system)	3200 mm
Suction nozzle width	820 mm
Fan speed max.	3500 rpm
Air flow rate max.	9000 m <sup>3</sup> /h

## Weights

Empty weight	3100 kg
Total permissible weight (GVM)	4500 kg
Payload	1400 kg

## Drive

Transport speed max.	50 km/h
Operating speed max.	12 km/h
Gradeability	30°

## Steering

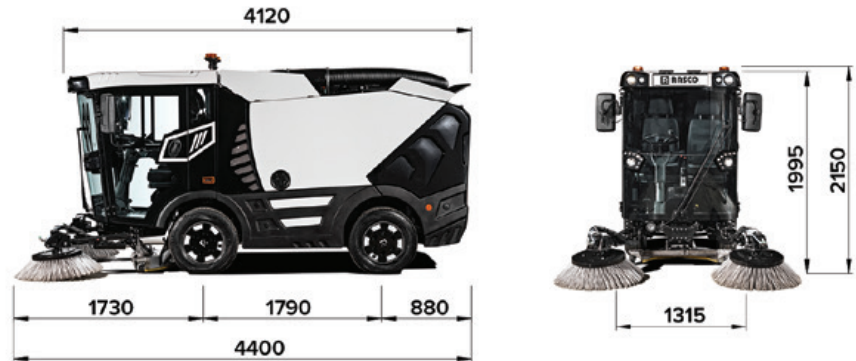
Steering angle front axle	48°
Steering angle rear axle	24°
Wheel diameter	15"

## Hopper

Total volume	2.0 m <sup>3</sup>
Discharge angle	50°
Discharge height	1550 mm

## Water system

Clean water tank	230 L
Recirculation system	170 L
Total water systems	400 L



LYNX





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